

Autonomous Agents and Multiagent Systems

2007/2008

Lab 2

Reactive Agents in the *Loading Docks* world in *NetLogo*

1 Objectives

- Introduction to the *NetLogo* multiagent platform.
- Implementation of the *Loading Docks* world in *NetLogo* using reactive agents.

2 Exercise

1. Starting from the base file provided with the lab materials, implement, in the *NetLogo* platform, the sensors, actuators and behavior rules for a reactive agent capable of solving the *Loading Docks* world problem. Remember that actuators can have preconditions.

The base file already implements the actuator for moving forward and sensors for perceiving whether the robot is carrying a box, the color of the box the robot is carrying and the color of the box ahead.

2. Improve the agent with respect to the issues discussed on the previous lab.

Note: The behavior rules should be implemented in the `update-robot` robot procedure. Robot state initialization should be confined to the `initialize-robot` procedure. Behavior rules should be based on actuators and sensors (i.e., actuator, sensor and decision code should be clearly separated).

AASM-Alameda: <https://fenix.ist.utl.pt/publico/executionCourse.do?method=firstPage&executionCourseID=49906>

AASM-Taguspark: <https://fenix.ist.utl.pt/publico/executionCourse.do?method=firstPage&executionCourseID=50328>